



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/806,395	03/23/2004	Thierry Sin Yan Too	4450-0437PUS1	2343
33932	7590	11/30/2005	EXAMINER	
CIENA CORPORATION 1201 WINTERSON ROAD LINTHICUM, MD 21090			BLEVINS, JERRY M	
			ART UNIT	PAPER NUMBER
			2883	

DATE MAILED: 11/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/806,395	SIN YAN TOO, THIERRY	
	<b>Examiner</b>	<b>Art Unit</b>	
	Jerry Martin Blevins	2883	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 23 March 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 2, 4, 10, 12, 14, 15, 17, and 21 are rejected under 35 U.S.C. 102(e) as being anticipated by US Pre Grant Publication to Liberty, number 2004/0109660.

Regarding claim 1, Liberty teaches an angular optical component retention and removal system (Figures 1-4) for use with an optical communications equipment shelf having a faceplate (including tabs 4,5), the faceplate being provided vertically in the optical communications equipment shelf (Figure 5), comprising: a housing (2) having at least one opening provided therein communicating with an opening provided in the faceplate, wherein the housing connects to the faceplate (Figure 2), the housing opening is provided at an angle less than 90 degrees from the vertically-arranged faceplate (Figure 4, page 2, paragraphs 30,31), and the housing opening receives and retains at least one optical component (connectors 16).

Regarding claim 2, Liberty teaches the limitations of the base claim 1. Liberty also teaches that the housing opening is provided at an angle that prevents a fiber optic

Art Unit: 2883

cable connected to the optical component from being bent beyond its minimum bend radius (page 2, paragraph 28).

Regarding claim 4, Liberty teaches the limitations of the base claim 1. Liberty also teaches that the housing includes a pair of sidewalls (elements 7,8, page 2, paragraph 27) forming the housing opening therebetween.

Regarding claim 10, Liberty teaches the limitations of the base claim 2. Liberty also teaches that the fiber optic cable connected to the optical component extends away from the faceplate a distance less than a distance a horizontally-disposed fiber optic cable extends away from the faceplate (inherent, given that the fibers are angled).

Regarding claim 12, Liberty teaches an insertion/removal mechanism for inserting and removing an optical component to and from an optical communications equipment shelf having a faceplate (Figures 1-4), the insertion/removal mechanism comprising: a handle portion (Figures 7 and 8, elements 44,45), and two sidewall portions (7,8) connected together by a cross member (element 9, page 2, paragraph 27), wherein the two sidewall portions are spaced from one another to fit within an opening of the faceplate (Figure 2), the handle portion is connected to at least one sidewall portion (Figures 7 and 8), and each sidewall portion includes a cam section (56).

Regarding claim 14, Liberty teaches a method of retaining an optical component (connectors 16) in an angular orientation (page 2, paragraphs 30,31) in an optical communications equipment shelf having a faceplate (Figures 1-4), the faceplate being provided vertically in the optical communications equipment shelf (Figure 5),

Art Unit: 2883

comprising: inserting the optical component in a housing (6) having at least one opening provided therein communicating with an opening provided in the faceplate, wherein the housing connects to the faceplate (Figure 2), and the housing opening is provided at an angle less than 90 degrees from the vertically-arranged faceplate (Figure 4, page 2, paragraphs 30,31), and retaining the optical component in the housing opening (page 2, paragraph 30).

Regarding claim 15, Liberty teaches the limitations of the base claim 14. Liberty also teaches that the housing opening is provided at an angle that prevents a fiber optic cable connected to the optical component from being bent beyond its minimum bend radius (page 2, paragraph 28).

Regarding claim 17, Liberty teaches the limitations of the base claim 14. Liberty also teaches that the housing includes a pair of sidewalls (elements 7,8, page 2, paragraph 27) forming the housing opening therebetween.

Regarding claim 21, Liberty teaches a method of removing an optical component retained in a faceplate of an optical communications equipment shelf (page 1, paragraph 5), comprising: pulling an insertion/removal mechanism connected to the optical component away from the faceplate (page 1, paragraph 5), wherein the insertion/removal mechanism includes a handle portion (Figures 7 and 8, elements 44,45), and two sidewall portions (7,8) connected together by a cross member (9), the two sidewall portions are spaced from one another to fit within an opening of the faceplate (Figure 2), the handle portion is connected to at least one sidewall portion (Figures 7 and 8), and each sidewall portion includes a cam section (56).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 3, 11, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty in view of US Pre Grant Publication to Lyon, number 2003/0123811.

Regarding claims 3 and 16, Liberty teaches the limitations of the base claims 1 and 14, respectively. Liberty does not teach that the housing opening is provided at an angle between about 40 degrees and about 55 degrees from the vertically-arranged faceplate. Lyon teaches an angular optical component retention and removal system and method of retaining an optical component in an angular orientation wherein the optical component is retained at an angle between about 40 degrees and about 55 degrees (page 2, paragraph 24). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liberty with Lyon. The motivation would have been limit the bend radius of the fiber optic cable (Lyon, page 2, paragraph 24).

Regarding claim 11, Liberty teaches the limitations of the base claim 10. Liberty does not teach that the fiber optic cable extends a distance of about 1.5 inches less than the distance the horizontally-disposed fiber optic cable extends away from the faceplate. Lyon teaches an angular optical component retention and removal system wherein the optical component is retained at an angle between about 40 degrees and about 55 degrees (page 2, paragraph 24). Although, Lyon does not directly teach the

Art Unit: 2883

particular extension distance, the angle taught by Lyon corresponds to the angle taught by applicant in claims 3 and 16 and in the applicant's specification. The extension distance is merely a function of the angle; therefore, Lyon indirectly teaches the claimed extension distance. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liberty with Lyon. The motivation would have been limit the bend radius of the fiber optic cable (Lyon, page 2, paragraph 24).

Claims 5-9, 13, 18-20, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Liberty in view of Applicant's Admitted Prior Art (AAPA).

Regarding claim 5, Liberty teaches the limitations of the base claim 4. Liberty does not teach that each sidewall includes a slot for receiving a spring retainer of the optical component that retains the optical component in the housing opening between the sidewalls. AAPA teaches that each sidewall includes a slot for receiving a spring retainer (applicant's Figure 1, element 116) of the optical component that retains the optical component in the housing opening between the sidewalls. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liberty with AAPA. The motivation would have been to improve the retention of the optical component.

Regarding claim 6, Liberty in view of AAPA teaches the limitations of the base claim 5. Liberty also teaches an insertion/removal mechanism for inserting and removing the optical component to and from the housing opening (Figures 1-4, and see rejection of claim 7 below).

Regarding claim 7, Liberty in view of AAPA teaches the limitations of the base claim 6. Liberty also teaches that the insertion/removal mechanism comprises: a handle portion (Figures 7 and 8, elements 44,45), and two sidewall portions (7,8) connected together by a cross member (element 9, page 2, paragraph 27), wherein the two sidewall portions are spaced from one another to fit within an opening of the faceplate (Figure 2), the handle portion is connected to at least one sidewall portion (Figures 7 and 8), and each sidewall portion includes a cam section (56).

Regarding claim 8, Liberty in view of AAPA teaches the limitations of the base claim 7. Liberty also teaches that each cam section engages a corresponding member of the optical component and forces the member from a housing slot to aid in removal of the optical component from the housing (page 2, paragraph 33). Liberty does not teach that the corresponding member is a spring retainer. However, AAPA teaches that each optical component comprises a spring retainer, as addressed in the rejection of parent claim 5.

Regarding claim 9, Liberty in view of AAPA teaches the limitations of the base claim 7. Liberty also teaches that each housing sidewall includes a cam slot for receiving a corresponding cam section of the insertion/removal mechanism (page 2, paragraph 33).

Regarding claim 13, Liberty teaches the limitations of the base claim 12. Liberty also teaches that each cam section engages a corresponding member of the optical component to aid in removal of the optical component from the faceplate. However, Liberty does not teach that the member is a spring retainer. AAPA teaches a spring



Art Unit: 2883

retainer (applicant's Figure 1, element 116) of an optical component. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liberty with AAPA. The motivation would have been to improve the ease of removal of the optical component.

Regarding claim 18, Liberty teaches the limitations of the base claim 17. Liberty does not teach retaining the optical component in the housing opening between the sidewalls with a slot provided in each sidewall that receives a spring retainer of the optical component. AAPA teaches that each sidewall includes a slot for receiving a spring retainer (applicant's Figure 1, element 116) of the optical component that retains the optical component in the housing opening between the sidewalls. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liberty with AAPA. The motivation would have been to improve the retention of the optical component.

Regarding claim 19, Liberty in view of AAPA teaches the limitations of the base claim 18. Liberty also teaches providing an insertion mechanism for inserting the optical component into the housing opening (Figures 1-4, and see rejection of claim 20 below).

Regarding claim 20, Liberty in view of AAPA teaches the limitations of the base claim 19. Liberty also teaches that the insertion mechanism comprises: a handle portion (Figures 7 and 8, elements 44,45), and two sidewall portions (7,8) connected together by a cross member (element 9, page 2, paragraph 27), wherein the two sidewall portions are spaced from one another to fit within an opening of the faceplate

Art Unit: 2883

(Figure 2), the handle portion is connected to at least one sidewall portion (Figures 7 and 8), and each sidewall portion includes a cam section (56).

Regarding claim 22, Liberty teaches the limitations of the base claim 21. Liberty teaches engaging members of the optical component with the cam sections of the insertion/removal mechanism to aid in removal of the optical component from the faceplate. Liberty does not teach that the members are spring retainers. AAPA teaches a spring retainer (applicant's Figure 1, element 116) of an optical component. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Liberty with AAPA. The motivation would have been to improve the ease of removal of the optical component.

### ***Conclusion***

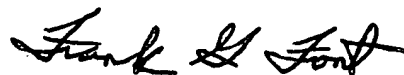
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jerry Martin Blevins whose telephone number is 571-272-8581. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Frank G. Font can be reached on 571-272-2415. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2883

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JMB



Frank G. Font  
Supervisory Patent Examiner  
Technology Center 2800